

Claims:

I claim

[1] The three dimensional object generator composed of the group selected from

- 1) Beam projector means
- 2) Beam navigator means
- 3) Image generator means
- 4) Material supply system means
- 5) Controller means
- 6) Optionally, input device means
- 7) Optionally, vari-focal lens means
- 8) Optionally, object-projector position controller means

[2] the claim of [1], wherein said Beam projector means is composed of the group selected from

photon generator, electron generator, particles generator, ion generator, laser, arc lamp, visible light, ultra violet light, infrared light, microwave, ultrasound

[3] the claim of [1], wherein said Beam navigator means is composed of the group selected from

proper combination of lenses, tele-centric lens system, vari-focal lens system, magnetic lens system, optical lens system, reflector, lens-less beam navigator system

[4] the claim of [1], wherein said Image generator means is composed of the group selected from

micro-display, photo-display, pattern generator, digital mirror device, liquid crystal, liquid crystal on silicon, grating light valve, matrix grating light valve, matrix light unit.

[5] the claim of [1], wherein said Material supply system means is composed of the group selected from

liquid plastic, metal, plastic, liquid material, solid material, gas material, photo-sensitive material, electron-sensitive material, materials that react with beams

[6] the claim of [1], wherein said controller means is composed of the group selected from

material supply controller, image controller, height controller, valve controller, input image controller, computer, drivers

[7] the claim of [1], wherein the said Input device means is composed of the group selected from

triangular 3 dimensional image input devices, mesh-oriented 3 dimensional image input device, the slicing type 3 dimensional image input devices, multi-eyes 3 dimensional image input device, single eye vari-location 3 dimensional image input devices, single eye mono-location 3 dimensional image input devices, ultrasound 3 dimensional image input devices, general 3 dimensional object input device

[8] the claim of [1], wherein the said vari-focal lens means is composed of the group selected from

piezo-electric lens, lens with motion generator, mechanical lens, deformable lens, acousto-optic lens, electro-optic lens, lenses that changes the focus with control

[9] the claim of [1], wherein the said object-projector position controller means is composed of the group selected from

base height/position controller, projector height/position controller, tank height/position controller, micro-display height/position controller.

[10] the matrix light unit device composed of the group selected from

- 1) elementary unit means
- 2) base frame means
- 3) Optionally controller means

[11] the claim of [10], wherein said elementary unit means is composed of the group selected from

surface material unit designed to change the height, locaion and/or angle relative to the base frame means in order to deflect the incoming beam to right direction. The material can be reflective or non-reflective. It can be silicon or other materials.

[11] the claim of [10], wherein said elementary unit means is composed of the group selected from

surface material unit designed to change the height, locaion and/or angle relative to the base frame means in order to deflect the incoming beam to right direction. The material can be reflective or non-reflective. It can be silicon or other materials. This is used for optical images generation and/or object generation and/or optical patterning of neural computer.

[13] the claim of [10], wherein said base frame means is composed of the group selected from

the base that support the elementary unit means. This can be stable or movable.

[14] the claim of [10], wherein said controller means is composed of the group selected from

the controlling system to control each element of said elementary unit means and optionally base frame means